

WHAT IS CLAIMED IS:

1. A user wearable fitness monitoring timing device, comprising:

a lap sensing device outputting a first signal;

a sensor responsive to movement of said user and providing a second signal output;

a wireless heart rate monitor receiving a heart rate signal of said user and providing a third output signal;

a first means for providing a synchronized output signal in response to said first and second output signal wherein said synchronized output signal indicates a number of laps completed by said user, a distance traveled by said user, a time traveled by said user and relationships between said laps, said distance and said time;

a second means responsive to said third output signal to provide a heart monitor output indicating a heart rate of said user;

a display means for displaying said synchronized output and said heart rate monitor output.

2. The device according to claim 1, wherein said sensor responsive to movement is a step sensor.

3. The device according to claim 1, wherein said sensor responsive to movement of said user is a swimming stroke sensor.

4. The device according to claim 1, wherein said lap sensing device includes a Hall-effect sensor for determining a direction of movement of said user.

5. The device according to claim 1, wherein said sensor responsive to movement includes a piezoelectric sensor.

6. The device according to claim 1, wherein one of said relationships between said laps, said distance and said time is a split time.

7. The device according to claim 4, wherein said lap sensing device includes a voltage controlled oscillator and wherein said first means includes a monitoring means for monitoring the output of said voltage control oscillator to determine the direction of movement of said user.

8. A wrist-based fitness monitoring system worn by a user, said system comprising;

means for monitoring movement of said user as a function of time, distance and direction and outputting a plurality of movement signals;

means for monitoring a physiological condition of said user and outputting a monitoring signal;

control means responsive to said movement signals to synchronize said movement signals to provide a series of relationships between said distance, said time and said direction of movement of said user to include lap completion information and distance completion, wherein said control means also includes

means for outputting indicators based on said physiological output; and

display means responsive to said physiological indicators and said relationships output from said controller in order to display said relationships and said physiological indicators.